

Proficiency Testing Requirements

South Carolina Department of Health and Environmental Control

Office of Environmental Laboratory Certification

Proficiency Testing (PT) samples are used to measure a laboratory's proficiency in analyzing a particular method for specified analytes. The laboratory must participate in Water Supply (WS) and/or Water Pollution (WP) studies annually as required. The laboratory must obtain samples that are part of an official study obtained from an A2LA-approved provider. A list of approved PT providers may be found on the A2LA website at www.a2la.org. A list of required PT parameters for South Carolina can be located on our website at www.scdhec.gov/labcert.

PT Schedule

In order to maintain certification in South Carolina, acceptable PT sample results for the laboratory must be received by December 31st each year for the Water Supply (WS) and/or Water Pollution (WP) studies. This means that the study the laboratory participates in must begin in the calendar year and end in the calendar year with the results received in our office by December 31. **The PT Provider must submit these studies to this Office.** We cannot accept PT results faxed from laboratories. Also remember to document your EPA Lab Code on the results to your provider. See the information below on how to obtain an EPA Lab Code.

Studies received in January will not be accepted for meeting the annual PT requirement. If acceptable PT Studies are not received by December 31st, decertification may be initiated. All PT samples must be part of an official WS and/or WP study. Quick turn-around PT samples are not acceptable. The PT samples must be formulated according to the EPA Criteria Document published December 1998 and the NELAC Fields of Proficiency Testing (FoPT) tables. A2LA has approved PT Providers based on the new criteria. Some PT Providers are not certified for every parameter, so it is necessary to verify the PT provider's certificate which is available on the A2LA website.

Reporting Results to PT Provider

Results must be sent to the provider prior to the study close date. No late results will be accepted. Most providers make results available immediately following the study close date so that laboratories can grade their own data and order repeat samples without waiting three weeks for the final reports to be issued. Because many study results are released immediately, data reported to the PT Provider after the close of the study (even if the PT Provider accepts and grades the data) cannot be used for certification and will be viewed as "Unacceptable" by this Office. Any changes to any of the data reported to the vendor will not be accepted for certification purposes. Be sure that the data is correctly reported when it is submitted.

When completing the reporting forms to be sent to the PT Provider, you must indicate that the results are to be sent directly to this Office. All of the PT Providers have the Office address and will send the reports here. If there are any questions regarding this, please contact the PT Provider to ensure that they have the Office address. The laboratory's EPA Lab Code and the State Lab ID number must also be included. Please be sure to include this information. If this information is not included, the results may be inadvertently credited to the wrong laboratory and you may not get credit for participating in a PT Study. If you do not know or are unsure of your EPA Lab Code and/or State Lab ID numbers, please contact us for assistance.

Correct Method Reporting

When completing the reporting forms, be sure to include the correct method number(s) being used. It is critical that the proper method number be referenced since PT samples are now required for each method for which you are certified. To ensure that you are reporting the correct method, review your certificate. If you are using a method that is not listed on your certificate, please contact this Office so that

your certificate can be updated. If you do not report PT results for each method for which you are certified, you will lose certification for the unreported method(s). Results for one method cannot be substituted for another method. The method must include the entire method reference as is written on your certificate. For instance, for pH, you must write the entire method whether it is EPA Method 150.1 or SM 4500HB. Writing SM 4500, SM 4500B, SM 4500H, 4500H, or any other combination is not correct. If you have any questions about this, please contact this Office.

What if you have multiple labs?

If you are the laboratory director or employee for more than one laboratory, you must treat each laboratory independently. Samples must be obtained, analyzed, and reported by each individual laboratory. Individual laboratories are determined by their state laboratory ID number and associated certificate(s). If separate ID numbers (5 numerical digits) and certificates are issued by this Office, then separate PT samples are required. The PT sample reports must reference the proper laboratory ID numbers (State and EPA). It is not acceptable to report one result for any sample for two different laboratories. It is also not acceptable to split a sample between laboratories. If you work at two locations, you must analyze one sample at the first location using all of the equipment and reagents at the first location. You must then order and analyze another sample at the second location using the equipment and reagents at the second location.

All sample analyses must be recorded in the daily analysis records. This serves as the permanent laboratory record. Analysis results for the PT samples must be reported as if they are actual samples using the study you are participating in as the sample ID. Also keep a copy of the report that you send to the PT Provider for grading so that if problems arise, you will have a record of what you sent.

Microbiology

Microbiology samples, for the Water Supply study only, are reported as present or absent. This applies whether you are using the membrane filter method or another approved method. All ten bottles that come with a PT sample are to be analyzed using the same method. If the laboratory is certified for multiple methods, then a separate sample (10 bottles) must be analyzed by each method. Results are to be reported for both total coliform and fecal coliform/E. coli for each sample (10 bottles). If you are using the membrane filter method, you must take the samples through the verification process to determine the presence or absence of total coliform and fecal coliform. Records for these verifications are required.

For the Water Supply Study, heterotrophic bacteria are analyzed using one sample. Results are reported as the number of heterotrophic bacteria observed per mL of sample (cfu/mL). A separate sample is required for each method for which the laboratory is certified.

For the Water Pollution study, one sample is analyzed for each method and analyte. The results are reported as a number of colonies per 100mL (CFU/100mL or MPN/100mL). This applies to both membrane filtration methods and Most Probable Number (MPN) methods. The analytes covered under the WP microbiology are total coliform, fecal coliform, and enterococci.

EPA Lab Code

Each laboratory must use their assigned EPA Lab Code on all reported PT results submitted to their PT Provider. Without this EPA Lab Code we are unable to credit the PT results to the correct laboratory. The EPA Lab Codes are assigned by the USEPA. They must be contacted at the phone number provided below.

This EPA Lab Code is especially important for DMR-QA participants. Each laboratory performing analyses to meet the requirements of the DMR-QA must document their EPA Lab Code for each analysis they and their contract laboratory perform and report to the PT provider. If you do not have an EPA Lab Code or do not remember your EPA Lab Code call, fax, or write:

Mr. Charles Feldman
US EPA, M/S 140
26 W. Martin Luther King Drive
Cincinnati, Ohio 45268
(513) 569-7671: fax (513) 569-7191

PT results reported without the correct EPA Lab Code may not be accepted by our office, since the results cannot be credited to appropriate facility or laboratory.

If there are any questions concerning the Proficiency Testing (PT) Requirements, please contact the Office of Environmental Laboratory Certification at (803) 896-0970.